

HYDRUS 2.0

ULTRASONIC METER

DIEHL
Metering



APPLICATION

Highly accurate, lead-free brass ultrasonic smart water meter for residential, commercial and industrial installations.

FEATURES

- ▶ Extreme low-flow accuracy and long term measurement stability
- ▶ Integrated leak detection
- ▶ Mountable in any installation position
- ▶ Lead-free copper alloy body
- ▶ IP68 rated
- ▶ 42 days of hourly data storage
- ▶ Diehl Extended Encoder protocol that includes temperature, alarms and error messages, etc.
- ▶ Meets or exceeds C715 AWWA/ANSI Standards
- ▶ Complies with NSF/ANSI/CAN Standards 61 and 372, Annex F/G as well as FCC part 15 B

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GENERAL TECHNICAL DATA

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Potable water temperature	°F	33 ... 122
Ambient operating temperature	°F	-13 ... 131
Ambient storage temperature	°F	-13 ... 158 (95°F max. for 4 weeks)
Maximum operating pressure	psi	300
Power supply	Two 3.6 VDC lithium batteries	
Battery lifetime	Up to 20 years	
Encoder interface	9 digit programmable resolution industry standard encoder protocol, ASCII output for compatibility with most AMR/AMI systems, Diehl extended protocol is available	
Data storage	Alarms and consumption values (42 days of hourly data storage)	
Protection class	IP68	

TECHNICAL DATA DISPLAY

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Display indication	LCD, 9-digit, additional symbols/display counter/unit
Units	Flow and volume (gpm, gal, ft ³ , m ³)
Values displayed	Display test - total volume - firmware version / checksum - current flow - errors / alarms (Additional values based on configuration)
Alarms	Hardware flow - leak detection - backflow - air in pipe - low battery - undersized meter - no consumption - high temperature - freezing risk

APPROVAL

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NSF	Complies with NSF/ANSI Standard 61, Annex F/G
AWWA	Meets or exceeds applicable sections of the AWWA/ANSI C715 Standards
FCC	Complies with FCC part 15 B

MATERIAL

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Measuring pipe	Lead-free copper alloy (stainless steel 1½" & 2")
Register housing	Engineered polymer
Transducers	Composite
Reflectors	Stainless steel

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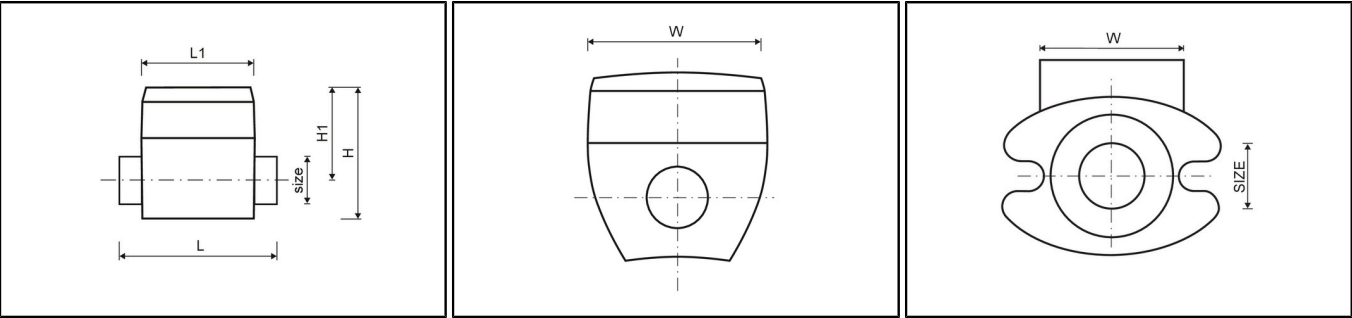
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TECHNICAL DATA

Size		5/8" x 1/2"		5/8" x 3/4"		3/4"S		3/4"	
Lay length	inch	7½		7½		7½		9	
Operating flow range	gpm	0.08 - 22		0.08 - 22		0.1 - 32		0.1 - 32	
Low flow range	gpm	0.025 - 0.08		0.025 - 0.08		0.04 - 0.1		0.04 - 0.1	
Starting flow	gpm	0.011		0.011		0.017		0.017	
Operating range accuracy	%	±1.5		±1.5		±1.5		±1.5	
Low flow range accuracy	%	±5		±5		±5		±5	
Pressure loss	psi	4.3@15 gpm		4.3@15 gpm		2.0@15 gpm		2.0@15 gpm	

Size		1"		1 ½"		2"	
Lay length	inch	10¾		13		17	
Operating flow range	gpm	0.1 - 55		0.16 - 100		0.8 - 170	
Low flow range	gpm	0.055 - 0.1		0.1 - 0.16		0.55 - 0.8	
Starting flow	gpm	0.025		0.038		0.11	
Operating range accuracy	%	±1.5		±1.5		±1.5	
Low flow range accuracy	%	±5		±5		±5	
Pressure loss	psi	1.5@25 gpm		3.5@70 gpm		3.6@110 gpm	

DIMENSIONS



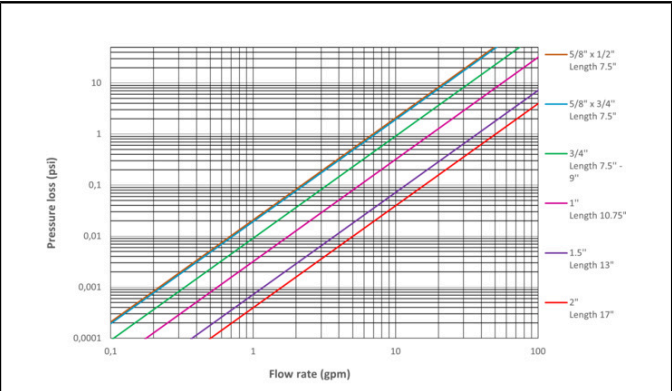
Size		5/8" x 1/2"		5/8" x 3/4"		3/4"S		3/4"	
Lay length	inch	7½		7½		7½		9	
Register length	L1	inch	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Register width	W	inch	3.7	3.7	3.7	3.7	3.7	3.7	3.7
Overall height	H	inch	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Height from center of pipe to top	H1	inch	2.7	2.7	2.7	2.7	2.7	2.7	2.7
Nominal thread size		¾" - 14 NPSM		1" - 11½ NPSM		1" - 11½ NPSM		1" - 11½ NPSM	
Net weight	lbs.	2.8		2.8		2.8		3.1	

Size		1"		1 ½"		2"	
Lay length	inch	10¾		13		17	
Register length	L1	inch	3.5	3.5	3.5	3.5	3.5
Register width	W	inch	3.7	3.7	3.7	3.7	3.7
Overall height	H	inch	4.2	5.3	5.8	5.8	5.8
Height from center of pipe to top	H1	inch	2.8	3.3	3.3	3.3	3.3
Nominal thread size		1¼" - 11½ NPSM		oval flanges		oval flanges	
Net weight	lbs.	3.5		14.1		19.2	

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PRESSURE LOSS GRAPH / TYPICAL ERROR GRAPH



Pressure loss graph

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Economic Actor Information

Applicable regulation and legal obligations for products may change.

DIEHL METERING monitors applicable regulation to ensure their products comply at the date of placing on the market.

Each economic actor making products available on the market thereafter must independently keep informed about the current applicable regulation.

For questions, please contact: metering-germany-info@diehl.com